

**Blue Rock Industries  
Cumberland County  
Westbrook, Maine  
A-140-71-I-M/R**

**) Departmental  
) Findings of Fact and Order  
) Air Emission License**

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

1. Blue Rock Industries has applied to renew their Air Emission License permitting the operation of emission sources associated with their Westbrook, Maine concrete batch plant and crushed stone and gravel facility.
2. This renewal will also reflect the replacement of the previously licensed primary rock crusher with a new similarly sized primary crusher unit.

**B. Emission Equipment**

Blue Rock is authorized to operate the following equipment:

**Rock Crushers:**

<b>Designation</b>	<b>Power Source</b>	<b>Process Rate (tons/hr)</b>	<b>Control Device</b>
Primary	Electric	200	Spray Nozzles
Secondary	Electric	200	Spray Nozzles
Tertiary	Electric	260	Spray Nozzles
Primary	Electric	178	Spray Nozzles

**Concrete Batch Plant**

<b><u>Equipment</u></b>	<b><u>Process Rate</u></b>	<b><u>Date of Manufacture</u></b>	<b><u>Control Devices</u></b>
Concrete Batch Plant	120 yd <sup>3</sup> /hr	1990	Baghouse
Pneumatic Conveyor	25 tons/hr	Pre-1970	Baghouse

### Electrical Generation Equipment

<u>Equipment</u>	<u>Power Output (kW)</u>	<u>Fuel Type, % Sulfur</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Stack #</u>
Diesel G-2	256	Diesel fuel, 0.5%	17.9	2

#### C. Application Classification

The application for Blue Rock does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only.

## II. BEST PRACTICAL TREATMENT (BPT)

#### A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

#### B. Rock Crushers

Blue Rock operates a primary, secondary and tertiary rock crusher at their Westbrook facility. The primary rock crusher was manufactured in 2001, installed in 2002 and replaces the previously licensed primary crusher. The new primary crusher has a process rate of 200 tons per hour (ton/hr). The tertiary rock crusher is a cone crusher with a process rate of 260 ton/hr and was installed in 2004, replacing two older tertiary crushers that were removed from service at the Blue Rock facility. The new primary rock crusher and the tertiary rock crusher were manufactured after 1983 and are therefore subject to EPA's NSPS Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants. The secondary crusher was manufactured prior to the 1983 NSPS applicability date.

Blue Rock also operates a portable primary rock crusher, which was manufactured in 1976 and is therefore not subject to EPA's NSPS Subpart OOO.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, Blue Rock shall maintain and operate water sprays on the rock crushers at the Westbrook facility in such a manner as to control visible emissions to no greater than 10% opacity on a 6-minute block average basis.

**C. Concrete Batch Plant**

Blue Rock utilizes a 125 cubic yard per hour (yd<sup>3</sup>/hr) concrete batch plant for concrete production at their Westbrook, Maine concrete manufacturing facility. Both the concrete batch plant cement silo and weigh hopper are vented to a fabric filter baghouse maintained for 99% removal efficiency.

In order to document maintenance on the baghouse, Blue Rock shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be located at the facility whenever the facility is in operation.

Visible emissions from the baghouse shall be limited to 10% opacity on a 6-minute block average, except for no more than one 6-minute block in any 1-hour period. Blue Rock shall take corrective action if visible emissions from the baghouse exceed 5% opacity.

All components of the concrete batch plant shall be maintained so as to prevent particulate matter (PM) leaks. Additionally, there shall be a rubber boot, which extends into the mixer-truck loading chute to minimize fugitive emissions when the dry materials are dropped/loaded into the truck. Visible emissions from concrete batching operations shall not exceed 20% opacity except for no more than five minutes in any one-hour period.

**D. Diesel Generator Unit**

Blue Rock utilizes a portable diesel generator set, designated Diesel G-2, primarily as a power source for the primary, secondary and tertiary rock crushers. BPT for the diesel units shall be a total annual fuel use limit of 50,000 gallons of diesel fuel oil at 0.5% sulfur by weight based on a 12-month rolling total. To demonstrate compliance with the fuel restrictions, Blue Rock shall maintain a record of fuel oil purchases, which shall include receipts indicating the amount of fuel delivered and the sulfur content of the purchased fuel.

A summary of the BPT analysis is as follows

1. BPT for PM for the diesel unit is 0.12 lb/MMBtu. PM<sub>10</sub> emission limits are based on PM limits.
2. SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC emission limits are based on AP-42 data dated 10/96.
3. Visible emissions from the diesel generator unit shall not exceed 30% opacity on a 6-minute block average except, for no more than two 6-minute block averages in a 3-hour period.

E. Fugitive Emissions

Visible emissions from potential sources of fugitive particulate matter emissions, including material stockpiles and unpaved roadways, shall not exceed an opacity of 20 percent, except for no more than 5-minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20 percent in any 1-hour.

F. Annual Emission Restrictions

Blue Rock shall be restricted to the following annual emissions, based on a 12 month rolling total:

**Total Allowable Annual Emission for the Facility**  
(used to calculate the annual license fee)

<b><u>Pollutant</u></b>	<b><u>Tons/Year</u></b>
PM	0.4
PM <sub>10</sub>	0.4
SO <sub>2</sub>	1.8
NO <sub>x</sub>	15.4
CO	3.3
VOC	1.2

**III.AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor source shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source. Based on the total facility emissions, Blue Rock is below the emissions level required for modeling and monitoring.

## **ORDER**

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-140-71-I-R subject to the following conditions:

### **STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.

- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - b. pursuant to any other requirement of this license to perform stack testing.
  - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - (iii) submit a written report to the Department within thirty (30) days from date of test completion.

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

**SPECIFIC CONDITIONS**

**(16) Concrete Batch Plant**

- A. Blue Rock shall vent emissions from the concrete batch plant through a baghouse maintained for 99% removal efficiency and maintain all components of the concrete batch plant so as to prevent emission leaks. [MEDEP Chapter 115, BPT]
- B. Blue Rock shall keep a maintenance log recording the date and time of all bag failures as well as all routine maintenance. The maintenance log shall be located at the facility whenever the facility is in operation. [MEDEP Chapter 115, BPT]
- C. Opacity from the concrete batch plant baghouse is limited to no greater than 10% opacity on a 6-minute block average, except for no more than one 6-minute block in any 1-hour period. Blue Rock shall take corrective action if visible emissions from the baghouse exceed 5% opacity. [MEDEP Chapter 101]
- D. Blue Rock shall utilize a rubber boot, which shall extend into the mixer-truck loading chute to minimize fugitive emissions when the dry materials are being dropped/loaded. [MEDEP Chapter 115, BACT]
- E. Fugitive particulate matter emissions from the concrete batching operation shall be controlled so as to prevent visible emissions in excess of 20% opacity, except for no more than 5-minutes in any 1-hour period. [MEDEP Chapter 101]
- F. All components of the concrete batch plant shall be maintained so as to prevent PM leaks. [MEDEP Chapter 115, BACT]

**(17) Rock Crushers**

- A. Blue Rock shall maintain spray nozzles on the portable primary rock crusher and the Primary, Secondary and Tertiary Rock Crushers and operate the spray nozzles in such a manner so as not to exceed visible emissions limits. Visible emissions from the crushers shall be limited to no greater than 10% opacity on a 6-minute block average basis. [MEDEP Chapter 101]
- B. Blue Rock shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]



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- C. Blue Rock shall maintain a log detailing and quantifying the hours of operation on a daily basis for the Primary, Secondary and Tertiary Rock Crushers. The operation log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]
- (18) New Source Performance Standards for rock crushers
- a. The new primary crusher and the new tertiary cone crusher are subject to 40 CFR Part 60 Subparts A and OOO and Blue Rock Industries shall comply with the notification and record keeping requirements of 40 CFR Part 60.676 and Part 60.7, except for Section (a)(2) of 60.7 per Subpart OOO, §60.676(h). [40 CFR 60, Subpart OOO]
  - b. Blue Rock Industries shall have an initial performance test performed on the new primary crusher and the new cone crusher per the applicable sections of 40 CFR Part 60, Subpart OOO, §60.675. This consists of a certified Method 9 observation. The performance test shall be completed within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup of the unit. Blue Rock Industries shall submit a test notice to the regional inspector at least 30 days prior to the performance test. Any rescheduled test requires a 7-day notice to the regional inspector. [40 CFR 60, Subpart OOO]
- (19) Diesel Generator Unit
- A. Total fuel use for all diesel generator unit (Diesel G-2) shall not exceed 50,000 gal/year of diesel fuel with a maximum sulfur content of 0.5% by weight based on a 12 month rolling total. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total. [MEDEP Chapter 115, BPT]
  - b. Emissions from Diesel G-2 shall be limited to the following:
- | <b>Equipment</b> |       | <b>PM</b> | <b>PM<sub>10</sub></b> | <b>SO<sub>2</sub></b> | <b>NO<sub>x</sub></b> | <b>CO</b> | <b>VOC</b> |
|------------------|-------|-----------|------------------------|-----------------------|-----------------------|-----------|------------|
| Diesel G-2       | lb/hr | 0.3       | 0.3                    | 1.3                   | 11.0                  | 2.4       | 0.9        |
- [MEDEP Chapter 103]
- c. Visible emissions from Diesel G-2 shall not exceed 30% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period. [MEDEP Chapter 101]

(20) Fugitive Emissions

Visible emissions from potential sources of fugitive particulate matter emissions, including material stockpiles and unpaved roadways, shall not exceed an opacity of 20 percent, except for no more than 5-minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20 percent in any 1-hour. [MEDEP Chapter 101]

(21) Equipment Relocation [MEDEP Chapter 115, BPT]

- a. Blue Rock shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

Attn: Relocation Notice  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.

- b. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- c. If less than 10 days is necessary for notification, contact the regional inspector by phone to notify of the upcoming relocation. This phone contact with the regional inspector shall be followed up with a written notice of relocation with the appropriate information.
- (22) Blue Rock shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115]
- (23) Blue Rock shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 MRSA §605-C).

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- (24) Blue Rock shall pay the annual air emission license fee within 30 days of December 31 of each year. Pursuant to 38 MRSA 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for the revocation of the license under 38 MRSA 341-D, Subsection 3.

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

The term of this Order shall be for five (5) years from the signature above.

Date of initial receipt of application: **March 5, 2004**

Date of application acceptance: **March 16, 2004**

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by, Peter G. Carleton, Bureau of Air Quality